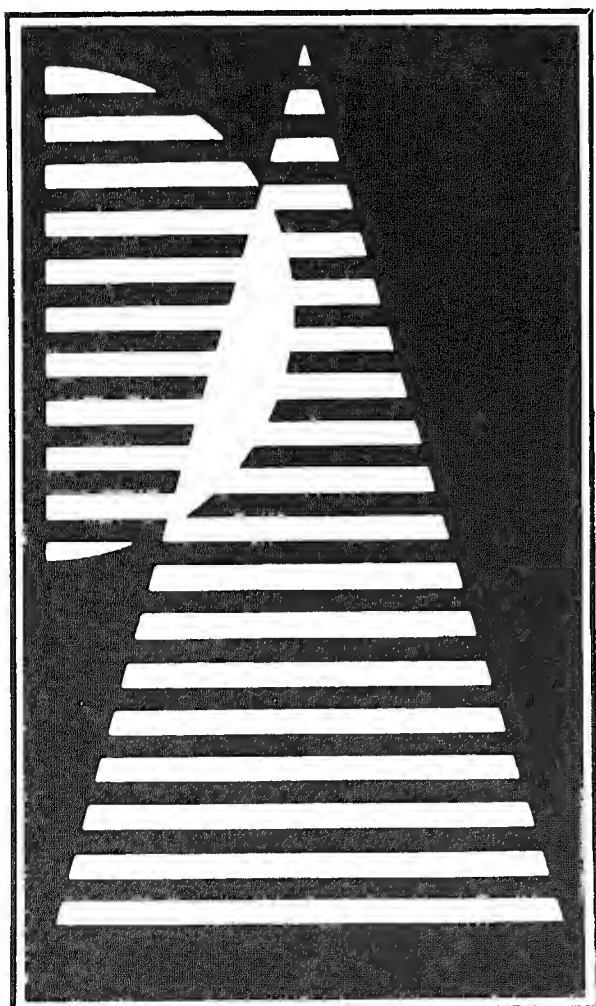


# **SBIR Pre-Solicitation Announcement**



This issue contains information on SBIR Solicitations of the following Federal participating agencies.

**U.S. Department of Education**

**U.S. Department of Transportation**

**U.S. Nuclear Regulatory Commission**

**U.S. Department of Energy**

**U.S. Department of Health &  
Human Services**

**DECEMBER 1988**

NOTICE TO READERS OF PSA

We recently Introduced Section XII which contains notices on upcoming Federally sponsored and co-sponsored SBIR conferences and seminars. Please see Page 36.

## TABLE OF CONTENTS

I. Master Schedule of SBIR Solicitations for FY 1989	<u>1</u>
II. The SBIR Program	<u>2</u>
III. The Three Phases of SBIR	<u>2</u>
IV. Purpose of the PSA	<u>3</u>
V. Eligibility Requirements to Participate in SBIR	<u>3</u>
VI. SBIR Solicitations -- Proposals -- Awards	<u>4</u>
VII. SBA/SBIR Mailing List	<u>5</u>
VIII. Available SBIR Solicitation Topics	<u>6</u>
<u>U. S. DEPARTMENT OF EDUCATION</u>	<u>6</u>
<u>U. S. DEPARTMENT OF ENERGY</u>	<u>8</u>
<u>U. S. DEPARTMENT OF HEALTH AND HUMAN SERVICES</u>	<u>11</u>
<u>U. S. DEPARTMENT OF TRANSPORTATION</u>	<u>25</u>
<u>U. S. NUCLEAR REGULATORY COMMISSION</u>	<u>28</u>
IX. Listing of SBA Regional Offices for Requesting Copies of <u>Proposal Preparation for SBIR</u>	<u>30</u>
X. SBA's Procurement Automated Source System (PASS)	<u>32</u>
XI. Listing of Representatives of the Federal Agencies Participating In the SBIR Program	<u>33</u>
XII. Listing of Upcoming SBIR Conferences and Seminars	<u>36</u>

I. MASTER SCHEDULE OF SBIR SOLICITATIONS  
FISCAL YEAR 1989

<u>AGENCY</u>	<u>RELEASE DATE</u>	<u>CLOSING DATE</u>
Department of Agriculture	July 1, 1989	September 1, 1989
Department of Commerce	October 15, 1988	January 15, 1989
Department of Defense	October 1, 1988	January 6, 1989
Department of Education	January 13, 1989	March 17, 1989
Department of Energy	November 18, 1988	February 16, 1989
Department of Health & Human Services:		
1. Public Health Service Health Care Finance Administration (PHS/HCFA)	October 1, 1988	December 9, 1988
2. Public Health Service (PHS)	January 15, 1989	April 15, 1989 August 15, 1989 December 15, 1989
Department of Transportation	February 13, 1989	May 1, 1989
Environmental Protection Agency	November 10, 1988	January 10, 1989
National Aeronautics & Space Administration	April 10, 1989	June 9, 1989
National Science Foundation	April 3, 1989	June 19, 1989
Nuclear Regulatory Commission	January 13, 1989	March 27, 1989

NOTE: The above dates may be subject to change by the participating agencies due to administrative reasons.

## II. THE SBIR PROGRAM

The Small Business Innovation Research Program began in 1982 with the enactment of the Small Business Innovation Development Act.

On October 6, 1986, legislation was signed which reauthorized the program through September 30, 1993.

The Act required agencies of the Federal Government with extramural budgets for research or R&D in excess of \$100 million to establish SBIR Programs. Funding for the program is derived from fixed percentages of each participant agency's R&D budget.

There are presently 11 Federal agencies participating in SBIR. They are listed on page 1.

During FY 1987, small business concerns successfully competed for award of 2,189 Phase I and 768 Phase II SBIR funding agreements amounting to approximately \$350 million.

## III. THE THREE PHASES OF THE SBIR PROGRAM

The SBIR Program consists of the following three phases:

PHASE I - Is to evaluate the scientific technical merit and feasibility of an idea. Awards of up to \$50,000 with a period of performance normally not to exceed six months are involved.

ONLY PHASE I AWARDEES ARE ELIGIBLE FOR CONSIDERATION OF AWARD OF PHASE II.

PHASE II - Is to expand on the results of and further pursue the development of Phase I. Awards of \$500,000 or less with a period of performance normally not to exceed two years are involved.

PHASE III - Is for the commercialization of the results of Phase II and requires the use of private or non-SBIR Federal funding. No SBIR funds may be utilized in this Phase.

#### IV. PURPOSE OF THE SBIR PRE-SOLICITATION ANNOUNCEMENT (PSA)

The PSA provides small business firms with advance information on upcoming SBIR solicitations about to be released by Federal agencies participating in the Program.

SBA usually publishes PSA's quarterly -- in March, June, September and December of each year.

PSA's contain data on all of the SBIR solicitations scheduled for release during the following 3-month period. As an example, a PSA published in December would include details on SBIR solicitations to be released in January, February and March.

They also may contain information on previously announced SBIR solicitations that are still open.

The listing of topics available begins on page 6. As a potential SBIR offeror, if you should find a topic of interest to your firm, please contact the Federal agency designated for that topic to obtain a copy of the applicable SBIR solicitation.

SBA does not distribute copies of SBIR solicitations.

#### V. ELIGIBILITY REQUIREMENTS TO PARTICIPATE IN THE SBIR PROGRAM

Small Business. A small business concern is one that, at the time of award of SBIR Phase I and Phase II funding agreements, meets the following criteria.

1. Is independently owned and operated, is not dominant in the field of operation in which it is proposing, has its principal place of business located in the United States and is organized for profit;
2. Is at least 51 percent owned, or in the case of a publicly owned business, at least 51 percent of its voting stock is owned by United States citizens or lawfully admitted permanent resident aliens;
3. Has, including its affiliates, a number of employees not exceeding 500, and meets the other regulatory requirements found in 13 CFR Part 121. Business concerns, other than investment companies licensed, or state development companies qualifying under the Small Business Investment Act of 1958, 15 U.S.C. 661, et seq., are affiliates of one another when either

V. ELIGIBILITY REQUIREMENTS TO PARTICIPATE  
IN THE SBIR PROGRAM  
(continued)

directly or indirectly (A) one concern controls or has the power to control the other; or (B) a third party or parties controls or has the power to control both. Control can be exercised through common ownership, common management, and contractual relationships. The term "affiliates" is defined in greater detail in 13 CFR 121. The term "number of employees" is also defined in 13 CFR 121. Business concerns include, but are not limited to, any individual, partnership, corporation, joint venture, association or cooperative.

VI. SBIR PROGRAM SOLICITATIONS - PROPOSALS - AWARDS

The simplified SBIR Program Solicitation process provides small business concerns with an excellent opportunity to propose innovative ideas that meet specific Research and R&D needs of the Federal Government while potentially opening the door to future commercialization.

SBIR Program Solicitations contain detailed information on:

Research Topics

Instructions for the preparation of SBIR proposals

Release and closing dates

To obtain sufficient information on which to submit an SBIR proposal, you need to contact the designated Federal agency and obtain a copy of the applicable solicitation. Copies of these solicitations are not available until their stated release date.

SBIR Phase I Proposals are limited to (25) pages.

Under the SBIR Program, proposals are evaluated competitively by the participating Federal agencies to determine the best innovative solutions to the designated technical topics.

SBIR Awards are made on a competitive basis. The selection criteria for this competitive process are further explained in the SBIR Program Solicitations released by each of the Federal agencies participating in the program.

Information on these Federal contact points is contained in each issue of the SBIR Pre-Solicitation Announcement.

## VII. The SBA/SBIR MAILING LIST

There is no single mailing list for all SBIR Program Solicitations.

To obtain a copy of an SBIR solicitation, a small business concern needs to contact the designated Federal agency. The SBA Pre-Solicitation Announcement cites the appropriate Federal contact points where copies of SBIR solicitations may be requested.

The SBA Office of Innovation, Research and Technology maintains a computerized listing of firms that are sent copies of the SBIR Pre-Solicitation Announcement on a regular basis. If you wish to be added to this list, please contact us at the following address:

Office of Innovation, Research  
and Technology  
U.S. Small Business Administration  
1441 L Street, N. W., Room 500  
Washington, D. C. 20416  
(202) 653-6458



VIII. FEDERAL AGENCY SBIR SOLICITATION TOPICS AVAILABLE

UNITED STATES DEPARTMENT OF EDUCATION

FY 1989 SBIR PROGRAM SOLICITATION

The RELEASE DATE for this SBIR Program Solicitation is:

January 13, 1989

The CLOSING DATE for the receipt of PHASE I proposals is:

March 17, 1989

Copies of the U. S. Department of Education's FY 1989 SBIR solicitation (RFP: 89-020) may be obtained from:

Mrs. Sharon Ross  
U. S. Department of Education  
Application Control Center  
Room 3633, Mail Stop 3338  
GSA Building  
7th and D Streets, S. W.  
Washington, D. C. 20202  
Telephone: (202) 732-2495

Questions on general policies, procedures and administration of the SBIR Program should be directed to:

Mr. John W. Christensen  
U. S. Department of Education  
555 New Jersey Avenue, N. W.  
Room 602E  
Washington, D. C. 20208  
Telephone: (202) 357-6065

The Department of Education anticipates making approximately 12 Phase I awards each of which will not exceed \$30,000.

THE FEDERAL RESEARCH TOPIC TITLES AVAILABLE UNDER THIS SBIR PHASE I PROGRAM SOLICITATION FOLLOW:

1. Development or Adaptation of Devices, Mechanisms, or Techniques for Disabled Individuals
2. Reduction or Elimination of Environmental Barriers for Disabled Students

FEDERAL AGENCY SBIR SOLICITATION TOPICS AVAILABLE

U. S. DEPARTMENT OF EDUCATION

3. Innovative Technologies to Enhance Job Development, Job Modifications, or Job Opportunities for Disabled Individuals
4. Development of Management Information System Software Concerned with the Needs of Disabled Individuals and their Families
5. Development or Adaptation of Innovative Technologies to Enhance Learning and Development of Young Disabled Children
6. The Application of Technology to the Teaching of the Uncommonly Taught Languages of the Middle East, and
7. Development of a Science Program for Limited English-Proficient Students In Jr. High Schools

Please note that the Department of Education's fiscal year 1989 SBIR request for proposals document 89-020 -- to be issued January 13, 1989 -- might reflect additions and deletions to the topics identified above.

FEDERAL AGENCY SBIR SOLICITATION TOPICS AVAILABLE

UNITED STATES DEPARTMENT OF ENERGY

FY 1989 SBIR PROGRAM SOLICITATION

(Repeated from September 1988 Issue of PSA)

The RELEASE DATE for this SBIR Program  
Solicitation is:

November 18, 1988

The CLOSING DATE for the receipt of  
PHASE I proposals is:

February 16, 1989

Agency address and/or phone number from which SBIR program  
solicitations can be obtained:

SBIR Program Manager  
U. S. Department of Energy  
Washington, DC 20545  
(301) 353-5707

Names, addresses, and phone numbers of agency contact points  
where SBIR-related inquiries may be directed:

Ms. Gerry Washington  
SBIR Spokesperson, ER-16  
c/o SBIR Program Manager  
U. S. Department of Energy  
Washington, DC 20545  
(301) 353-5867

Estimated number and average dollar amounts or level of effort  
of Phase I awards to be made under the solicitation: About 120  
awards at \$50,000 maximum per award.

THE FEDERAL RESEARCH TOPIC TITLES AVAILABLE UNDER THIS SBIR  
PHASE I PROGRAM SOLICITATION FOLLOW:

1. High Temperature Superconducting Materials: Processing and  
Devices
2. Chemical Sciences Research
3. Geoscience Research: Distribution of Permeability in  
Reservoirs

FEDERAL AGENCY SBIR SOLICITATION TOPICS AVAILABLE

U. S. DEPARTMENT OF ENERGY

4. Materials Sciences
5. Instrumentation for Ocean Measurements
6. Renewable Resources from Plants: Techniques and Instrumentation
7. Human Genome
8. Nuclear Medicine
9. Methodology In Support of Environmental Issues
10. Nuclear Physics Instrumentation and Techniques
11. Accelerator Technology for Nuclear Physics
12. Accelerator Technology for High Energy Physics
13. High Energy Physics Technology and Research
14. High Energy Physics Data Processing, Data Management, and Detector Instrumentation
15. Technology for the Superconducting Super Collider
16. Plasma Diagnostics
17. Plasma Confinement Systems Technology
18. Fusion Energy Systems
19. Robotics and Remote Operations In Civilian Nuclear Facilities
20. Advanced Instrumentation and Computer Technologies for Civilian Nuclear Industries
21. Materials and Concepts for Application to Advanced Nuclear Energy Systems
22. Technologies for Separation or Isolation of Civilian Nuclear Substances
23. Enhanced Oil Recovery
24. Advanced Technology for the Recovery and Utilization of Natural Gas

FEDERAL AGENCY SBIR SOLICITATION TOPICS AVAILABLE

U. S. DEPARTMENT OF ENERGY

25. Enhanced Recovery of Oil Shale and Tar Sand Syncrude
26. Advanced Coal Utilization
27. Coal-Based Liquids and Other Coal-Based Fuels
28. Environmental Control Technology for Fossil Energy
29. Fossil Energy Instrumentation
30. Fossil Energy Materials
31. Biotechnology for Fossil Energy
32. Innovative Refrigeration Systems
33. Novel Electronic and Ionic Conductors for Energy Storage and Distribution
34. Solar Thermal Technology: Opportunities for Uses of Concentrated Solar Energy

FEDERAL AGENCY SBIR SOLICITATION TOPICS AVAILABLE

U. S. DEPARTMENT OF HEALTH & HUMAN SERVICES

FY 1989 SBIR PROGRAM SOLICITATION

The RELEASE DATE for this SBIR Program Solicitation is:

January 16, 1989

The CLOSING DATES for the receipt of PHASE I proposals are:

April 15, 1989  
August 15, 1989  
December 15, 1989

Request for copies of this solicitation are available from:

PHS SBIR Solicitation Office  
3202 Monroe Street  
Suite 300  
Rockville, MD 20852  
(301) 231-6378

Questions on general policies, procedures and administration of the SBIR Program should be directed to:

Ms. Lily O. Engstrom  
Director, Office of Special Programs  
and Initiatives  
National Institutes of Health  
Building 31, Room 9B54  
Bethesda, MD 20205  
(301) 496-1968

The Public Health Service hopes to make approximately 300 awards in this Phase I cycle. Awards will be in average amounts of \$50,000 each.

THE FEDERAL RESEARCH TOPIC TITLES AVAILABLE UNDER THIS SBIR PROGRAM SOLICITATION FOLLOW:

NATIONAL INSTITUTES OF HEALTH

National Institute on Aging (NIA)

Biomedical and Clinical Research on Aging

FEDERAL AGENCY SBIR SOLICITATION TOPICS AVAILABLE

U. S. DEPARTMENT OF HEALTH & HUMAN SERVICES

National Institute on Aging (NIA) (cont'd)

Behavioral and Social Research Program

Neuroscience and Neuropsychology of Aging

Contact:

Dr. Miriam F. Kelty  
Building 31, Room 5C-02  
Bethesda, MD 20892  
(301) 496-9322

National Institute of Allergy and Infectious Diseases (NIAID)

Allergy, Immunology, and Transplantation

Microbiology and Infectious Diseases

Acquired Immunodeficiency Syndrome

Contact:

Dr. John W. Diggs  
Westwood Building, Room 703  
Bethesda, MD 20892  
(301) 496-7291

National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)

Arthritis and Musculoskeletal and Skin Diseases

Contact:

Dr. Steve Hausman  
Westwood Building, Room 403  
Bethesda, MD 20892  
(301) 496-7495

National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)

Diabetes, Endocrinology and Metabolic Diseases

Digestive Diseases and Nutrition

FEDERAL AGENCY SBIR SOLICITATION TOPICS AVAILABLE

DEPARTMENT OF HEALTH & HUMAN SERVICES (HHS)

National Institute of Diabetes and Digestive and Kidney  
Diseases (NIDDK) (cont'd)

Kidney, Urologic and Hematologic Diseases

Contact:

Dr. John Garthune  
Westwood Building, Room 637  
Bethesda, MD 20892  
(301) 496-7793

National Cancer Institute (NCI)

Cancer Biology and Diagnosis

Contact:

Ms. Brenda Underwood  
6120 Executive Plaza Boulevard  
Executive Plaza South - Room 642B  
Rockville, MD 20892  
(301) 496-7028

Cancer Etiology and Prevention

Contact:

Dr. John A. Cooper  
6130 Executive Plaza Boulevard  
Executive Plaza North - Room 535  
Rockville, MD 20892  
(301) 496-1882

Cancer Treatment

Contact:

Dr. Mace Rothenberg  
Building 31, Room 3A49  
Bethesda, MD 20892  
(301) 496-6711



FEDERAL AGENCY SBIR SOLICITATION TOPICS AVAILABLE

DEPARTMENT OF HEALTH & HUMAN SERVICES (HHS)

National Cancer Institute (NCI) (cont'd)

Cancer Prevention and Control

Contact:

Dr. James Callahan  
Building 31, Room 10A49  
Bethesda, MD 20892  
(301) 496-1071

National Institute of Child Health and Human Development  
(NICHD)

Population Research

Research for Mothers and Children

Contact:

Ms. Hildegard Topper  
Building 31, Room 2A03  
Bethesda, MD 20892  
(301) 496-0104

National Institute of Dental Research (NIDR)

Caries

Periodontal Diseases

Craniofacial Anomalies

Restorative Materials

Pain Control and Behavioral Studies

Oral Ulcerative Diseases

Contact:

Dr. Thomas Valega  
Westwood Building, Room 510  
Bethesda, MD 20892  
(301) 496-6324

FEDERAL AGENCY SBIR SOLICITATION TOPICS AVAILABLE

DEPARTMENT OF HEALTH & HUMAN SERVICES (HHS)

National Institute of Environmental Health Sciences (NIEHS)

Test Methods for Assessing the Biological Effects of  
Environmental Agents

Specialized Products for Use In Toxicology Studies

Development of Products/Devices for Measuring Exposure to  
Toxic Agents

Development of Alternative Designs/Methods for  
Toxicity/Carcinogenicity Assessment

Contact:

Dr. Michael J. Galvin, Jr.  
P. O. Box 12233  
Research Triangle, NC 27709  
(919) 541-7825

National Eye Institute (NEI)

Retinal and Choroidal Diseases

Corneal Diseases

Cataract

Glaucoma

Strabismus, Amblyopia, and Visual Processing

Low Vision and Rehabilitation

Contact:

Dr. Ralph Helmsen  
Building 31, Room 6A48  
Bethesda, MD 20892  
(301) 496-5884

FEDERAL AGENCY SBIR SOLICITATION TOPICS AVAILABLE

DEPARTMENT OF HEALTH & HUMAN SERVICES (HHS)

National Institute of General Medical Sciences (NIGMS)

Cellular and Molecular Basis of Disease

Genetics

Pharmacological Sciences

Physiology and Biomedical Engineering

Contact:

Dr. David A. Wolff  
Westwood Building, Room 953  
Bethesda, MD 20892  
(301) 496-7061

National Heart, Lung and Blood Institute (NHLBI)

Heart and Vascular Diseases

Lung Diseases

Blood Diseases and Resources

Contact:

Dr. Henry Roscoe  
Westwood Building, Room 7A17  
Bethesda, MD 20892  
(301) 496-7225

National Institute of Neurological and Communicative Disorders  
and Stroke (NINCDS)

Communicative Disorders

Fundamental Neurosciences

Stroke and Trauma

Convulsive, Developmental and Neuromuscular Disorders

FEDERAL AGENCY SBIR SOLICITATION TOPICS AVAILABLE

DEPARTMENT OF HEALTH & HUMAN SERVICES (HHS)

National Institute of Neurological and Communicative Disorders  
and Stroke (NINCDS) (cont'd)

Demyelinating, Atrophic and Dementing Disorders

Contact:

Mr. Edward Donohue  
Federal Building, Room 1016  
Bethesda, MD 20892  
(301) 496-4188

Division of Research Resources (DRR)

Research and Development in Instrumentation and Specialized  
Technologies for Biomedical Research

Research in Laboratory Animal Sciences

Development of Biomedical Research Methods Employing Lower  
Organisms, Tissue/Cells in Culture or Mathematical and  
Computer Simulations

Development of Systems (Non-Software) or Devices for Patient  
Research Monitoring of Physiologic or Biochemical Parameters

Contact:

Dr. James O'Donnell  
Building 31, Room 5B03  
Bethesda, MD 20892  
(301) 496-6023

National Center for Nursing Research (NCNR)

Development and Testing of Technology that Enhances the  
Effectiveness of Nursing Care Delivery

Development of Information Systems Software for Managerial  
and Clinical Nursing Services

Development of Programs to Delay or Deter Onset of Smoking  
in Nursing Students

Contact:

Dr. Janet Heinrich  
Building 31, Room B1C02  
Bethesda, MD 20892  
(301) 496-0526

FEDERAL AGENCY SBIR SOLICITATION TOPICS AVAILABLE

DEPARTMENT OF HEALTH & HUMAN SERVICES (HHS)

ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH ADMINISTRATION (ADAMHA)

National Institute on Alcohol Abuse and Alcoholism (NIAAA)

Pharmacology

Identification

Treatment Compliance

Prevention

Basic Research Tools

Contact:

Dr. Laurie Foudin  
Parklawn Building, Room 14C-20  
Rockville, MD 20857  
(301) 443-4223

National Institute on Drug Abuse (NIDA)

Quantitative Analysis for Drugs in Body Fluids

Opioid Peptides

Performance and Drug Concentrations of Abused Substances

Perinatal Effects of Abused Substances

Methodological Study of Epidemiology of Drug Abuse

Drug Use in the Workplace

Training in Drug Abuse Treatment Techniques

Clinical Evaluation Instruments and Technology

Drug Delivery Systems

Prevention Research

Etiological Research

Prevention Program Assessment Methods

FEDERAL AGENCY SBIR SOLICITATION TOPICS AVAILABLE

DEPARTMENT OF HEALTH & HUMAN SERVICES (HHS)

ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH ADMINISTRATION (ADAMHA)

National Institute on Drug Abuse (NIDA) (cont'd)

Employee Program Assessment Methods

Technology to Address the Problem of AIDS In IV Drug Users

Special Needs Populations

Contact:

Ms. Jacqueline P. Downing  
Parklawn Building, Room 11A-33  
Rockville, MD 20857  
(301) 443-1056

National Institute of Mental Health (NIMH)

Instrumentation for Basic and Clinical Research

Brain and Body Imaging Techniques

Neuromolecular Biology and Chemistry

Pharmacology

Systems Development

Behavioral Science Research and Development

Health and Behavior

Contact:

Mr. James Moynihan  
Parklawn Building, Room 11-95  
Rockville, MD 20857  
(301) 443-3107

FEDERAL AGENCY SBIR SOLICITATION TOPICS AVAILABLE

DEPARTMENT OF HEALTH & HUMAN SERVICES (HHS)

CENTERS FOR DISEASE CONTROL (CDC)

National Institute for Occupational Safety and Health (NIOSH)

Prevent or Contain Hazardous Workplace Emissions at their Source

Remove Emissions From the Pathway Between the Source and the Worker

Control Exposure with Barriers Between the Worker and the Hazardous Work Environment

Evaluate Behavioral, Motivational, and Ergonomic Considerations

Develop Control Monitoring Instruments and Techniques

Develop Mathematical Dispersion Models to Predict Concentrations of Hazardous Chemicals

Investigate Fundamental Dust Generations Mechanisms Involved In the Flow of Powdered and Granulated Solid Materials

Develop System Safety Techniques for Maintenance and Start-Up/Shut-Down of Machine Operations

Improve Design of Industrial Hand Tools to Prevent Musculoskeletal Impairment

Design and Develop New and Innovative Respiratory Protective Devices

Develop End-of-Service-Life Indicators for Sorbents of Air Purifying Respirators

Develop Test Techniques and Models to Predict General Respirator Performance

Investigate Methods to Increase Effective Protection Factors In the Field Under Actual Workplace Conditions

Develop Methods for Determining Sorbent and Filter Efficiencies

FEDERAL AGENCY SBIR SOLICITATION TOPICS AVAILABLE

DEPARTMENT OF HEALTH & HUMAN SERVICES (HHS)

CENTERS FOR DISEASE CONTROL (CDC)

National Institute for Occupational Safety and Health (NIOSH)  
(cont'd)

Develop Low-Resistance, High-Efficiency Particulate  
Filtration Methods

Contact:

Dr. Roy Fleming  
Building 1, Room 3053  
M. S. D30  
1600 Clifton Road, N. E.  
Atlanta, GA 30333  
(404) 639-3343



FEDERAL AGENCY SBIR SOLICITATION TOPICS AVAILABLE

DEPARTMENT OF HEALTH & HUMAN SERVICES (HHS)

FOOD AND DRUG ADMINISTRATION (FDA)

Investigate Medical Applications of Small Angle X-Ray Scattering (Ray Scattering), Specifically Determining the Possibility of Tissue Differentiation Using this Effect

Develop an Instrument for Non-Contact Measurement of Hermetic Seal Integrity of Implantable Electronic Packages Using Correlation and Holographic Techniques

Develop an Optical Non-Destructive Method for Rapid Detection and Measurement of Condom Defects Introduced in Manufacturing

Determine the Accuracy and Reproducibility of Serum Cholesterol Levels as Measured in Different Laboratory Facilities

Survey Selected Departments in Accredited Schools of Public Health for Current Topics of Approved Masters and Doctoral Research Theses Relevant to Medical Device Safety and Effectiveness

Determine the Efficiency of Different Hemodialysis Machines Given the use of Identical Dialyzers, as Measured by Established Performance Standards

Measure Potentially Harmful Tissue By-Products in the Laser Plume/Debris During Clinical Applications

Examine Leakage of Viruses Through Examination and Surgical Gloves

Provide Statistical Support to Evaluate the Effects of Disinfectants on the Performance of Actual Use Hemodialyzers

Provide Statistical Support in the Collaboration Studies with CDRH Components in the Study of Toxic Effects of Materials Used in Medical Devices

Examine Inactivation Kinetics (rate) and extent of Different HIV Strains to Different Disinfectants of Relevance to the Medical Devices

Evaluation of Cavitation Around Prosthetic Heart Valves to Adequately Determine Potential Cavitation Damage to Mechanical Heart Valves

FEDERAL AGENCY SBIR SOLICITATION TOPICS AVAILABLE

DEPARTMENT OF HEALTH & HUMAN SERVICES (HHS)

FOOD AND DRUG ADMINISTRATION (FDA) (cont'd)

Investigate the Porosity of Prophylactic Membranes

Evaluate Non-Dedicated Blood Gas Controls and Reagents for Blood Gas Instrumentation

Developments of Systems Using Microorganisms to Understand Detoxification Pathways In Animals, Soil, and/or Water

Computer Systems for Control of Feeding, Animal Handling, and Pathology

Definition and Modeling of Metabolic Pathways

Development of Techniques to Alter those Metabolic Pathways to Modulate Toxicity

Computer Systems Development to Model Metabolic Pathways of Specific Toxic Chemicals

Computer Modeling Systems to Predict Biochemical Interactions In Human Systems

A Seriological Marker Test for Identifying Hepatitis Type Non A or Non B Antigens

Development of New Analytical Methodology for Conducting Bioavailability and Bioequivalence Drug Studies

New Methods for Assessing the Safety and Efficacy of Drugs

Evaluation of Post-Marketing Surveillance of Drugs

Development of Analytical Methods and Animal Models for Animal Drugs

Contact:

Ms. Olla Hopkins  
Division of Contracts and Grants Management  
Office of Management and Operations  
Food and Drug Administration  
Park Building, Room 320  
5600 Fishers Lane  
Rockville, MD 20857  
(301) 443-6170

FEDERAL AGENCY SBIR SOLICITATION TOPICS AVAILABLE

DEPARTMENT OF HEALTH & HUMAN SERVICES (HHS)

OFFICE OF ADOLESCENT PREGNANCY PROGRAMS (OAPP)

Development of Materials to Help Teens Consider Adoption as Positive Option

Development of Materials that Promote Abstinence from Adolescent Premarital Sexual Activity and Uphold Sexuality In the Context of Marriage

Development of Innovative Research Techniques or Measuring Instruments for Research In Pregnancy Prevention Among Adolescents

Development of Techniques to Improve the Quality and Analysis of Data Used to Measure the Effectiveness of Adolescent Pregnancy Programs

Contact:

Ms. Eugenia Eckard  
Office of Adolescent Pregnancy Programs  
HHH Building, Room 731E  
200 Independence Avenue, S. W.  
Washington, DC 20201  
(202) 245-1181

FEDERAL AGENCY SBIR SOLICITATION TOPICS AVAILABLE

U. S. DEPARTMENT OF TRANSPORTATION

FY 1989 SBIR PROGRAM SOLICITATION

The RELEASE DATE for this SBIR Program  
Solicitation is:

February 13, 1989

The CLOSING DATE for the receipt of  
PHASE I proposals is:

May 1, 1989

Copies of this FY 1989 SBIR Solicitation may be obtained from:

DOT SBIR Program Office, DTS-23  
U. S. Department of Transportation  
Transportation Systems Center  
Kendall Square  
Cambridge, MA 02142  
Attention: Dr. George Kovatch  
(617) 494-2051

All other SBIR-related inquiries should be directed to the  
above address.

It is estimated that approximately 10 Phase I awards, valued at  
up to \$50,000 each, will be made under this Fiscal Year 1989  
solicitation.

THE FEDERAL RESEARCH TOPIC TITLES AVAILABLE UNDER THIS SBIR  
PROGRAM SOLICITATION FOLLOW:

FEDERAL AVIATION ADMINISTRATION

1. Air Traffic Controller/Automation Communication
2. Application of Artificial Intelligence to the Maintenance  
Control Center
3. PC-Based Airspace Design and Procedural Development Tool
4. Advanced De-Icing Fluids for General Aviation Aircraft
5. Aging Aircraft Corrosion Indicator

FEDERAL AGENCY SBIR SOLICITATION TOPICS AVAILABLE

U. S. DEPARTMENT OF TRANSPORTATION

FEDERAL AVIATION ADMINISTRATION (cont'd)

6. Flying Quality Assessment of Digital Fly-By-Wire Transport Aircraft
7. Low Heat Release Composites for Aircraft Interiors
8. Airport Surface Traffic Automation
9. Video Image Processing of Airport Pavement Distress
10. Explosives Vapor Sampling
11. Innovative Passenger Screening for Weapons
12. Security Checkpoint Optimization

FEDERAL HIGHWAY ADMINISTRATION

1. Shear Stress Gage for Hydraulic Laboratory
2. New Materials for Roadside Safety Hardware
3. Equipment to Verify Steel Placement in Portland Cement Concrete
4. In-Place Permeometer for Open-Graded Drainage Layers
5. Large Diameter Non-Corrodible Dowel
6. Alternative De-Icing Materials

FEDERAL RAILROAD ADMINISTRATION

1. Remote Detector Monitoring Device

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

1. Toll Road Speed Control and Vehicle Performance Monitoring
2. Safety Belt Buckle Device to Restrain Toddlers and Young Children

FEDERAL AGENCY SBIR SOLICITATION TOPICS AVAILABLE

U. S. DEPARTMENT OF TRANSPORTATION

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION (cont'd)

3. Devices to Improve the Comfort and Convenience of Safety Belts
4. "Buckle-Up" Education Program for Science Class Students
5. Crash Protection Accessories for Occupants with Special Medical Needs
6. Vehicle/Object Detection Alongside Heavy Vehicles
7. Accessories to Increase the Safety of Motorcyclists
8. Headlamp Glare Reduction Devices

UNITED STATES COAST GUARD

1. Cocaine/Heroin Drug Detection Technologies
2. Passive Surveillance System for Law Enforcement
3. Remote Site Secondary Power Research
4. Remote Site Power by Wave Energy
5. Alternative Construction Materials

URBAN MASS TRANSPORTATION ADMINISTRATION

(To be announced)

Please contact the U. S. Department of Transportation for further information on these UMTA topics.

FEDERAL AGENCY SBIR SOLICITATION TOPICS AVAILABLE

UNITED STATES NUCLEAR REGULATORY COMMISSION

FY 1989 SBIR PROGRAM SOLICITATION

The RELEASE DATE for this SBIR Program Solicitation is:

January 13, 1989

The CLOSING DATE for the receipt of PHASE I proposals is:

March 27, 1989

Copies of this NRC FY 1989 SBIR Solicitation may be obtained from:

Ms. Jeanne Cucura (301) 492-4297 or  
Ms. Yvonne Terry (301) 492-4210  
Division of Contracts and Property Management  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Direct Inquiries on Topics to:

Mr. William E. Forehand  
Program Management, Policy Development,  
and Analysis Staff  
Office of Nuclear Regulatory Research  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555  
(301) 492-3625

The Nuclear Regulatory Commission anticipates making approximately 8 to 10 PHASE I awards at \$50,000 each under this solicitation.

THE FEDERAL RESEARCH TOPIC TITLES AVAILABLE UNDER THIS SBIR PROGRAM SOLICITATION FOLLOW:

1. Advance methods for analyzing the behavior of Light Water Reactors during severe accidents -- priorities include:
  - core melt progression
  - steam explosions
  - core-concrete interactions
  - hydrogen combustion

FEDERAL AGENCY SBIR SOLICITATION TOPICS AVAILABLE

U. S. NUCLEAR REGULATORY COMMISSION

2. Research on the dynamics of thermal-hydraulic interactions within nuclear reactors
3. Effects of stress, time and environmental factors on nuclear power plant pressure vessels and piping
4. Methods to better understand aging effects on nuclear power plant components, systems, and structures
5. Improved methods for non-destructive examination of nuclear power plant components
6. Research to define the probability of radioactive release during accidents
7. Research on assuring the safe storage of high and low-level radioactive wastes
8. Comparison of methods for blocking uptake of, and stimulating elimination of radionuclides in the body
9. Devices for reducing the uncertainty in personal dosimetry measurements due to geometry and other exposure conditions
10. Applications for the uptake of radionuclides by plants for decontamination
11. Development of an experimental model with low-pressure, low-temperature and 2-phase coolant (FREON or similar)
12. Probabilistic risk analysis research



IX. HOW TO OBTAIN THE SBIR PROPOSAL PREPARATION HANDBOOK

Copies of this publication may be obtained from the following regional offices of the U. S. Small Business Administration.

REGION I  
Boston

For Maine, New Hampshire, Vermont,  
Massachusetts, Rhode Island and  
Connecticut  
60 Batterymarch, 10th Floor  
Boston, MA 02110

REGION II  
New York

For New York, New Jersey, Puerto Rico  
and the Virgin Islands  
26 Federal Plaza  
New York, NY 10278

REGION III  
Philadelphia

For Pennsylvania, Delaware, Maryland,  
Virginia, West Virginia and  
Washington, DC  
Allendale Square  
475 Allendale Road  
King of Prussia, PA 19406

REGION IV  
Atlanta

For North Carolina, South Carolina,  
Georgia, Florida, Mississippi,  
Alabama, Tennessee and Kentucky  
1375 Peachtree Street, N. E.  
Atlanta, GA 30367-8102

REGION V  
Chicago

For Ohio, Indiana, Michigan, Illinois,  
Wisconsin and Minnesota  
230 South Dearborn Street, Room 510  
Chicago, IL 60604-1593

REGION VI  
Dallas

For Louisiana, Arkansas, Texas,  
Oklahoma and New Mexico  
8625 King George Drive, Bldg., "C"  
Dallas, TX 75235-3391

REGION VII  
Kansas City

For Missouri, Kansas, Iowa and  
Nebraska  
911 Walnut Street, 13th Floor  
Kansas City, MO 64106

HOW TO OBTAIN THE SBIR PROPOSAL PREPARATION HANDBOOK

REGION VIII  
Denver

For North Dakota, South Dakota,  
Colorado, Wyoming, Utah and Montana  
999 18th Street, Suite 701  
Denver, CO 80202

REGION IX  
San Francisco

For California, Arizona, Nevada,  
Hawaii, Guam  
450 Golden Gate Avenue - Box 36044  
San Francisco, CA 94102

REGION X  
Seattle

For Oregon, Washington, Idaho and  
Alaska  
2615 4th Avenue, Room 440  
Seattle, WA 98121

Please check the appropriate telephone directory  
under "U. S. Government" for telephone numbers.

X. SBA'S PROCUREMENT AUTOMATED SOURCE SYSTEM (PASS)

In addition, SBA's Office of Procurement and Technical Assistance has a Procurement Automated Source System (PASS) that maintains capability profiles of small businesses interested in Federal Government procurement opportunities. This system is used by Federal agencies and major prime contractors to identify small concerns with capabilities needed by the agencies or prime contractors. Being included in PASS could potentially lead to a contract or subcontract. For further information on the PASS program, please contact any one of the SBA Regional Offices listed on page 30 of this publication.

XI. PARTICIPATING FEDERAL AGENCY SBIR REPRESENTATIVES

DEPARTMENT OF AGRICULTURE

Dr. Charles F. Cleland  
SBIR Coordinator  
USDA/CSRS/CRGO/SBIR  
Room 323-J, Aerospace Bldg.  
Washington, DC 20251-2200  
(202) 447-7002

DEPARTMENT OF COMMERCE

Mr. James P. Maruca  
Director, Office of Small and  
Disadvantaged Business Utilization  
U. S. Department of Commerce  
14th and Constitution Avenue, N. W.  
HCHB, Room 6411  
Washington, DC 20230  
(202) 377-1472

Mr. Edward V. Tiernan  
DOC SBIR Program Manager  
Suitland Professional Center  
SPC, Room 307  
Suitland, MD 20233  
(301) 763-4240

DEPARTMENT OF DEFENSE

Mr. Robert Wrenn  
SBIR Coordinator  
OSD/SADBU  
U. S. Department of Defense  
The Pentagon - Room 2A340  
Washington, D. C. 20301-3061  
(202) 697-1481

PARTICIPATING AGENCY SBIR REPRESENTATIVES

DEPARTMENT OF EDUCATION

Mr. John Christensen  
SBIR Program Coordinator  
U. S. Department of Education  
Room 602B  
555 New Jersey Avenue, N. W.  
Washington, D. C. 20208  
(202) 357-6065

DEPARTMENT OF ENERGY

Ms. Gerry Washington  
SBIR Spokesperson - ER-16  
c/o SBIR Program Manager  
U. S. Department of Energy  
Washington, D. C. 20545  
(301) 353-5867

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Mr. Richard Clinkscales  
Director, Office of Small and Disadvantaged  
Business Utilization  
Office of the Secretary  
U. S. Department of Health and Human Services  
Washington, D. C. 20201  
(202) 245-7300

DEPARTMENT OF TRANSPORTATION

Dr. George Kovatch  
Chief, University Research & Technology  
Innovation Office (DTS-23)  
U. S. Department of Transportation  
Transportation Systems Center  
Kendall Square  
Cambridge, MA 02142  
(617) 494-2051

PARTICIPATING AGENCY SBIR REPRESENTATIVES

ENVIRONMENTAL PROTECTION AGENCY

Mr. Walter H. Preston  
SBIR Program Manager  
Research Grants Staff (RD-675)  
Office of Research and Development  
Environmental Protection Agency  
401 M Street, S.W.  
Washington, D. C. 20460  
(202) 382-7445

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Mr. Harry Johnson  
Director, SBIR Office - Code CR  
National Aeronautics and Space Administration  
600 Independence Avenue, S. W.  
Washington, D. C. 20546  
(202) 453-8702

NATIONAL SCIENCE FOUNDATION

Mr. Roland Tibbetts  
Mr. Ritchie Coryell  
SBIR Program Managers  
National Science Foundation  
1800 G Street, N.W.  
Washington, D. C. 20550  
(202) 357-9666

NUCLEAR REGULATORY COMMISSION

Mr. William E. Forehand  
SBIR Program Representative  
Program Management, Policy Development  
and Analysis Staff  
Office of Nuclear Regulatory Research  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555  
(301) 492-3625

XII. UPCOMING SBIR CONFERENCES AND/OR SEMINARS

ALL INQUIRIES CONCERNING THESE CONFERENCES SHOULD BE DIRECTED TO THE CONTACT POINTS CITED BELOW.

NOTE: Only SBIR conferences/seminars sponsored by the SBIR participating agencies or SBIR conferences/seminars sponsored or co-sponsored by the U. S. Small Business Administration will be considered for publication in the SBIR Pre-Solicitation Announcement.

\*\*\*\*\*

SBIR TRAINING PROGRAM ANNOUNCEMENT

TITLE: Overview of the SBIR Program, how it works, tips on proposal writing, and Illinois resources to assist SBIR applicants

DATE: March 16, 1989

TIME: 9:00 a.m. to 12:00 p.m.

LOCATION: 219 S. Dearborn Street  
Room 280  
Dirksen Federal Building  
Chicago, Illinois

FEE: \$25.00

REGISTRATION: The Support Center of Chicago  
166 W. Washington, 5th Floor  
Chicago, Illinois 60602

Contact: Totsie Cooper  
312-606-1530

SBA CONTACT: Arnold Ochakoff  
219 S. Dearborn St., Room 437  
Chicago, Illinois 60604  
312-353-5427

\*\*\*\*\*

UPCOMING SBIR CONFERENCES AND/OR SEMINARS

\*\*\*\*\*

SBIR TRAINING PROGRAM ANNOUNCEMENT

TITLE: SBIR Proposal Preparation - Tips on Proposal Writing

DATE: March 16, 1989

TIME: 1:00 p.m. to 4:00 p.m.

LOCATION: 219 S. Dearborn Street  
Room 280  
Dirksen Federal Building  
Chicago, Illinois

FEE: \$25.00

REGISTRATION: The Support Center of Chicago  
166 W. Washington, 5th Floor  
Chicago, Illinois 60602

Contact: Totsie Cooper  
312-606-1530

SBA CONTACT: Arnold Ochakoff  
219 S. Dearborn St., Room 437  
Chicago, Illinois 60604  
312-353-5427

\*\*\*\*\*



Small Business Administration  
L Street, N.W.  
Code: 6470  
hington, D.C. 20416

---

ial Business  
ty for Private Use, \$300

BULK RATE  
POSTAGE & FEES PAID  
SBA  
Permit No. G-82

C-480001-489